

Eco Buzz

EcoBuzz Edition 43

Term 3 2011



What is inside?

- Matariki celebrations in our schools
- Conference for teachers
- Competitions
- WES
- Natureland Zoo
- Project opportunities
- Eels/Inanga/Shellfish
- Student movie making opportunities!

Matariki art work from Nelson Central School students

 Nelson City Council
te kaunihera o whakatū

 tasman
district council
lifestyle

EcoBuzz is created with the help of many contributors – thank you to you all! Feel free to share this with others too - please



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Claire Webster

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Kia ora tatou –

We hope you had well earned restful and rejuvenating break from school. Now it's into term 3 (well and truly - by the time you receive this!) and the end of year seems to be rushing at us already! We do fully acknowledge how busy school life is and how you must let opportunities slide by as there are just too many. Balanced with this we believe we offer some very worthwhile opportunities and information that give depth and meaning to learning for our young people – namely - how to have a healthy place/planet to live.

Barack Obama delivered a speech a couple of years ago and read out this quote:

“Change will not come if we wait for some other person or some other time. We are the ones we have been waiting for; we are the change we seek”.

So the five of us wish to thank you – a teacher of our youth and young people, for helping to create the change we seek.

Another quote to ponder – by Henri Bortoft in ‘The Wholeness of Nature – “A change in the way of seeing means a change in what is seen”.

Ngā mihi nui

Adie, Jo, Rob, Karen and Claire

Teaching for Sustainability Conference -TRCC

Director: Pam Williams

We highly recommend this to all Enviroschools lead teachers as an excellent professional development opportunity. There will be a range of workshops and some specifically on Enviroschools.

Costs for registered teachers are subsidized!

More information www.trcc.org.nz

Costs: (if paid by Early Bird date 14/10/11, if paid after this date an additional \$100 applies). Live in: \$410 Live out: \$270. Registrations close 29th October, 2011.

Catering for Early Childhood, Primary and Secondary Teachers in both English and Māori Medium.

Secondary / Wharekura

- Examples of good practice years 9 – 13
- NCEA –providing relevant and exciting courses
- ‘Brainfood’ – possible, probable, preferred futures?

EC / Kohanga Reo

- Sustainable teaching practice in EC settings
- Examples of best practice and recent NZ research
- Making connections to bi-cultural teaching and Te Whariki.

Primary / Kura

- Exploring eco-literacy and eco-numeracy in the NZC and TMOA
- Integrating sustainability concepts into your programmes
- Enacting sustainable practices.



25 – 27 November 2011
At Rutherford House,
Victoria University
Wellington

Conservation education at Natureland Zoo



Students learn about nutrition in the food preparation area at the Zoo.

Natureland Zoo is busy and actively doing conservation education work and will continue to be offering EXCELLENT education programmes to schools.

I am the new educator at Natureland Zoo here in Nelson. You may remember me as the UC Education Plus adviser to schools in sustainability/environmental education/science or as the Enviroschools Regional Coordinator and one of the Enviroschools facilitators. Or, I may have helped you out on school camps or Seaweek or Conservation Week or relieved at your school or delivered your stream education and atmospheric science studies.

Last term I was busy delivering zoo education experiences offering classes new, fresh, exciting and educationally relevant learning both at the zoo and beyond – we have an awesome lot of animals and studies for you. Science: Living World learning objectives can be covered as well as Art, Numeracy and Literacy, Social Sciences, Technology. These are what I have been delivering but I tailor programmes to suit teacher/student needs:

Tuatara conservation **Endangered species going, going, gone!**

Work experience **NZ Gecko** **Birds**

Classification and adaptations **Food webs and energy** **Animal adoption** **Skins and coverings** **Numeracy programme** **Values – animal ethics/care** **Baby animals** **Survival and habitats** **Technology – design** **Photography and painting** **Keeping warm** **Threats!** **Rescue and release** **Animal welfare and care** **Adaptive radiation**



Students studying primate behaviour

Our prices are 'cheep'! \$3.50 per child to year 10; \$4.50 year 11-13. Combine your visit with beach visits/ecology or maybe a trip to the Brook Waimarama Sanctuary or Nelson Museum.

I would like to visit your staffroom for a

3 minute presentation to your staff about the fantastic programmes Natureland offers - at either a staff meeting or morning tea or department/syndicate meeting.

Contact the LEOTC Zoo Educator:

Roger Waddell

school@naturelandzoo.co.nz

www.naturelandzoo.co.nz

ph 5486166 or 021 1671 246



Heaps of prizes including a voyage to Sub-Antarctic Islands! Also \$500 cash prizes.

Screenings will be via Facebook.

<http://www.lastocean.co.nz/Film-Competition> - you use parts of their film footage/ photos/clips to make your own film about **Why the Ross Sea, Antarctica is special.** Open to Y9 – 13.

Deadline for entries is August 12th so be quick!

Enviroschools

Why is this programme so successful in many schools, kura and centres? Because it -

- Links environmental education projects together.
- Helps the centre have an environmental vision.
- Supports the schools in planning, activating projects and curriculum learning.
- Assists the integration of environmental projects into the organisation and operation of the school.
- Creates a “ripple” effect, starting from the children at school, which then spreads the sustainability message and practice among school families, and throughout the wider community.

Mother Earth reward

Mother Earth would like to hear about any projects that your school has done in the last year or is in the process of carrying out, that have made an exceptional contribution to healthy food and eating in the community.

Schools can **win one of three \$2500 prizes** towards their ongoing project or a similar initiative.

Registration for entries will open on 1 August 2011 and entries close on 30 September 2011. Get your thinking caps on and get ready to enter!

To register your interest with Mother Earth email the following details ASAP to cpotter@prolife.co.nz

-Name of school, -Address of school, -Name of contact person

For more information contact your Enviroschools facilitator.

Scrapbook contributions – due now!

Te Kaupapa mo 2011: The theme of the 2011 Scrapbook is “Earth to Earth”

Our earth provides rich resources that support us in our everyday lives. In a natural cycle, what comes from the earth ultimately returns to the earth. The 2011 Scrapbook will explore the many ways that enviroschools are working in harmony with this natural cycle.

Information and guidelines are available. Our regional page numbers are limited, so if you would like to have a scrapbook page please discuss with your facilitator.

Website update

Members Area: The Early Childhood section is live and contains scrapbook articles, resources, website links and articles and research. The Secondary area is 2 weeks away from being made live - all the content is looking great and will be a good base to build on.

Additional highlights: Enviroschools Programme Research from Faye Wilson-Hill, on better understanding educational outcomes in relation to literacy and the Enviroschools Programme- see

<http://www.enviroschools.org.nz/Enviroschools-programme-overview>

Te Aho Tu Roa: Kotuia video teaser out-links in the News section and on Te Aho Tu Roa/Kotuia pages -is a fun video, one that had students wanting to have it re-played about 13 times!

Survey:

Thanks to everyone for their efforts with the survey. We have got some great data to share with DOC and The Tindall Foundation. While there are gaps, we have data for over 50% of all enviroschools. Results include...92% of schools with vegetable gardens, 27% of schools creating animal habitats, 17% of schools with their own plant nursery. Next steps are, by the end of July we'll report back on regional data and a national summary.

TRCC conference

This is an encouragement to all teachers to register now for the TRCC supported Teaching for Sustainability Workshop/Conference in November. The link is www.trcc.org.nz/ and TRCC pays for teacher travel costs from outside the Wellington region. Come and be supported and energised and also leave with plans and ideas for future learning and teaching for sustainability!

Offers of workshop presentations are already coming in, however we would welcome more as this is a wonderful opportunity to share your knowledge and understandings. Just send a half - one page description, with the planned focus and teacher outcomes to Pam Williams at: pam.williams@vuw.ac.nz by AUGUST 4th.

Local Enviroschools news

In **Tasman in Term Two**, one more primary school and two Early Childhood Centres came on board with the Enviroschools Programme. So a warm and big welcome to you. You are now part of a large national network of schools and centres on the journey. Each school has a unique way of showing what their school or centre values and what they will work on to become more sustainable. The vision mapping process encourages students and staff to make connections through sustainable eyes. With this in mind, Adie ran a Matariki workshop at Parklands School, to assist the teachers who attended, to connect to their own family and environment using a Māori perspective. Another workshop for all Enviroschools Early Years was kindly hosted by Waverley Street Kindergarten. The workshop was collaboratively led by Waste Education Services, Sarah Langi, Jo Martin from NCC and Adie from TDC. It was great working with an enthusiastic bunch of teachers including the contingent from Golden Bay. Each Centre now has the newly published Early Years Guide to Enviroschools, to support their other resources.

Nelson Reflection for Progress workshop, Thursday 8 September 8.30am -12.30, Nelson City Council Ruma kaka. Come and try some reflection activities, meet some fellow EE teachers and get a head start on your planning for 2012! Teacher release available contact Jo Martin jo.martin@ncc.govt.nz for more information.

Richmond Reflection for Progress workshop Tuesday 13 September (also International Chocolate Day ☺) 3:30pm to 5:30pm, venue in Richmond, to be confirmed.

Motueka Reflection for Progress workshop Wednesday 14 September 3.00pm to 5.00pm, venue in Motueka.

Come and try some reflection activities, meet some fellow EE teachers and get a head start on your planning for 2012! Watch out for the email invitations in mid-August.

Early Childhood cluster meeting for all ECE to be held at Golden Bay Kindergarten on Wednesday 12 October 3.00 pm to 5.00 pm



Matariki hāngi at Golden Bay Kindergarten.

A hāngi as part of Matariki worked its customary magic at Golden Bay Kindergarten recently. The hāngi was the culmination of a month-long unit of learning around Matariki, the Māori New Year. It also meshed neatly with the theme of Maori Language Week, which is manaakitanga. Parents and supporters donated food to fill the hāngi and later on all tucked in to a delicious lunch. Many children enjoyed serving themselves, as well as the luxury of eating with their fingers. Everyone spoken to agreed that the Matariki learning experience had been just as big a success as the hāngi.

Head teacher Bidy Leigh explained how fitting it was that the hāngi completed the Matariki unit: "We all agree that employing Chachi Roden to lead our weekly Matariki sessions has enhanced our programme enormously. The teaching team is aligned to what Professor Jenny Ritchie says about this kind of cultural learning...that teachers can't be experts in another person's culture if they don't share that cultural background. Having Chachi and his partner Rea Stout contribute so usefully to our programme has really helped us in the enriching process of moving towards biculturalism."

The kindergarten received a special grant to engage Chachi (also known as Te Rangi) to lead the learning. He is of Ngati Awa and Tuwharetoa ki Kawerau descent, and says that the teaching experience has been a rewarding one for him, for Rea and for their children, who are on the kindergarten roll.

"I love it," he says. "Every Monday morning during Matariki, we've been teaching the children their numbers up to 10 and the colours of the rainbow. We've learned karakia and waiata together, and Rea has a warm-up exercise where they have to remember that 'oma' means to run, and so on. We've also worked out a little play around the Matariki theme too, and the children just love being in the drama. We approached Manawhenua ki Mohua to get their approval for the programme they were totally supportive.

This has been a real win/win/ win experience.

New Facilitator for Nelson Enviroschools

Nelson/Tasman Enviroschools is delighted to welcome Lindsey Fish as the new Enviroschools facilitator for Nelson! Lindsey is a registered primary school teacher and is already a familiar face in many Nelson primary schools through her work with Kids Edible Gardens and relief teaching. She brings heaps of ideas and enthusiasm and teaching experience to the role and is really looking forward to supporting Nelson Enviroschools to deepen their practice. If you would like to contact Lindsey please email her on enviroschools@ncc.govt.nz.



The Nelson Kindergarten Association has now joined the Enviroschools Programme. This partnership is very exciting for Enviroschools Early Years in Tasman and Nelson. Welcome to you all!

Clifton Terrace School Pupils at work visioning

Clifton Terrace School pupils made some awesome 3D models as a result of the "Me and My Environment" Unit. These are just 2 of them. They will be great to use when they make their vision map which they are currently working on.

Lindsey Fish
Enviroschools Facilitator



Ever Wondered?

A month of 'Spotlight on Science & Innovation'

This series starts on Thursday 4 August at 7.05pm on **TVNZ 7** (Also available through Freeview channel 7 and Sky channel 077)

Science is pivotal to everything so it is really good to view these programmes with your environmental eyes towards the bigger context of sustainability...

There is a great lineup of shows, including a second series of "Ever Wondered?" produced in partnership with Royal Society of NZ. The stories and educational resources are freely available both online and DVD.

Teachers will be able to register for these resources online at www.tvnz.co.nz/tvz7learninghub

You can check out the programmes online at <http://tvnz.co.nz/spotlight-on-science-and-technology/spotlight-science-and-technology-index-group-3619535>



BUGMAN ON BOARD FOR WEEDY WETLAND FILM CHALLENGE

Schools taking part in the Weedbusters 2-minute Film Challenge will be in to win a visit from New Zealand's own 'bugman', Ruud Kleinpaste, if they give their entry a wetlands theme.

Mr Kleinpaste is a patron of the National Wetland Trust which is providing judges for the challenge's special topic of 'weeds and wetlands' for those schools that wish to look at the impacts of weeds on these unique and threatened environments.

Executive officer of the Trust, Karen Denyer says "Wetlands are special habitat for many of our shy and threatened species, and weeds are one of the biggest problems they face. We'll need the next generation to help tackle them, and can't wait to hear their ideas."

This year is the 40th anniversary of the Ramsar Convention on Wetlands. Says Karen "We want to get kiwi kids *into* wetlands, in both senses of the word!"

The film challenge, which runs until the start of October and is open to Year 1-8 students, has so far attracted 80 registrations from schools interested in taking part.

To enter, groups of more than 3 and up to 30 students need to create a short clip (up to 2 minutes long) that tells a story about ornamental garden plants that have 'jumped the fence' and are now causing environmental damage in natural areas of New Zealand. Their entry could be a video clip or a narrated powerpoint, it could use still photography, or stop motion animation or cartoons, and it could be a play, a documentary or even a song or rap.

"It's a great opportunity for students to learn about the environment they live in, what's happening to protect that environment, and what they can do to help," says national Weedbusters coordinator, Carolyn Lewis.

For teachers, this challenge is curriculum-linked and fits into teaching under science and technology, social science, arts and English.

Weedbusters is an interagency weeds awareness programme that encourages New Zealanders to tackle weed issues in their local areas. More information on the Weedbusters 2-minute Film Challenge is at

www.weedbusters.org.nz

The National Wetlands Trust is a charitable organisation that aims to increase New Zealanders' awareness and appreciation of wetlands. Mr Kleinpaste's flights to visit the winning school will be covered by Kids Restore New Zealand (an Air New Zealand initiative); the National Wetlands Trust and Weedbusters New Zealand are very grateful for their assistance.

Bugman Ruud Kleinpaste has a close encounter with Weedbusters mascot Woody Weed.



Carolyn Lewis, National Weedbusters Coordinator

www.weedbusters.org.nz, (0274) 434 431,
info@weedbusters.org.nz

Chuck the Eco Duck

Chuck the Eco Duck is the star of a new series of animated stories that are fun, entertaining and centred around themes of the environment, awareness of the world we live in and caring for our family and friends. Alongside each animated story, a suggested teaching plan and bespoke resources have been created, including worksheets, interactive files and colouring books. Suitable for 3-8 year olds.

For initial information on Chuck, go to <http://www.chuck-the-eco-duck.com/schools> .



Funding for Action Projects

Effective environmental education is about education in, about and for the environment. It doesn't reach its full potential until learners have personalised their knowledge, made decisions on how to address issues, and reflected on that action.

With this in mind, WWF and The Tindall Foundation established the Environmental Education Action Fund. Its aim is to support schools and communities who, as part of

Preference is given to projects that:

- Have clearly defined learning outcomes aimed to address a specific environmental issue or issues
- Facilitate, support or promote opportunities for people to take action for their environment
- Have sound project planning and evaluation processes
- Provide evidence of strong community support
- Enable teachers to deliver environmental education programmes as outlined in the Guidelines for Environmental education in New Zealand Schools (Ministry of Education, 1999)
- Schools and community groups in New Zealand can apply.

Note - The fund is about taking action. There is no funding for awareness, landscaping/ground maintenance, eco/enviro centre buildings, overseas travel, research projects or government authorities.

Check out - http://wwf.org.nz/what_we_do/education/funding_for_schools/

Tahunanui Youth Park draft concept plan

In May Nelson City Council asked for ideas from the city's young people for the design of an innovative youth focused park at Tahunanui Reserve. The Youth Park replaces the skateboard half pipe that was removed last year.

In total 63 entries from Nelson youth were received and some entries were from groups, so all up 120 young people got involved in putting forward ideas and designs.

These ideas have been synthesized into a draft concept plan. You will be able to view the plan online from the middle of August at www.nelsoncitycouncil.co.nz and provide feedback. Once the plan is final work can begin on the Youth Park later this financial year.

Realise the Dream-the national school Science and Technology Awards.

This is the prestigious national competition for 20 secondary school students (Yr9 – Yr13) who have undertaken a piece of outstanding science research or technological development.

The Supreme Award Winner at Realise the Dream is also awarded the Prime Minister's Future Scientist Prize which is a \$50,000 Scholarship Award.

It is a week-long event held in December which is fully funded and includes a road trip within the North Island visiting many science institutions and being exposed to the latest science research and technology. It culminates in an award ceremony in Wellington.

If you know of a secondary school student who has carried out an outstanding piece of science research or technology development then the school can nominate that student for Realise the Dream.

There are also many other awards to be won.

Please visit the Realise the Dream website www.realisedream.org.nz and download the nomination form.

The nomination form needs to be sent together with the required material stated on the form to Debbie Woodhall, Royal Society of New Zealand, P O Box 598, Wellington, by

11 October 2011 at the latest.

If you have any questions about the nomination process then please contact- Debbie Woodhall at Debbie.woodhall@royalsociety.org.nz

Environmental scorecards launched!

Many people want to improve the way we take care of our local waterways and the Nelson City Council has responded by launching a scheme that highlights water quality so we can work towards keeping them healthy. The first Environmental Scorecards, which tell us the state of our river and stream health, recreational bathing water quality and the air quality, have been completed for 2010. The aim is that these records will be updated each year.

The scorecard for rivers and streams base their ratings of excellent to very degraded on data collected over several years. Rural streams and rivers in the Whangamoia, upper Wakapuaka and upper Maitai catchments have maintained gradings of Excellent-Very Good (grades A and B). However, streams within the Nelson urban and lowland pastoral farming areas are degraded (grades D and E) and have not improved. The card also tells us the causes for the poor health of the streams, what initiatives are in place to address these and what we can do to help.

Nelson City Council Monitoring Officer Paul Fisher says he is pleased there is a high level of interest in the community about our streams.

“Recently a year 11 Geography class at Nelson College for Girls carried out a series of studies related to land use and water quality in the Maitai River, organised by Head Geography Teacher Jennifer Thomas. The class were very enthusiastic and I was impressed with the standard of their reports and some of these are on display at the Council’s Customer Service Centre.”

Another related initiative is the Waimaori Streamcare Programme that works with schools and local people to actively monitor the health of streams through practical hands-on workshops at the riverside. Paul worked with the Waimaori facilitator Mel McColgan to help the students investigate the Maitai River’s health and to learn from a cultural perspective why clean water matters.

The three environmental monitoring summaries can be downloaded from

<http://www.nelsoncitycouncil.co.nz/annual-monitoring-summary/> or are available at the Customer Service Centre and libraries.

For more information about getting involved with stream care or monitoring contact Lynne Hall 03 546 0308 or Jo Martin 03 545 8728 at Nelson City Council.



Live Below The Line

I'm writing to you now because I have an exciting opportunity which I think the Enviroschools students in your area, especially the ones who came to the Jam, will love. We've just launched our flagship campaign,

Live Below The Line - www.livebelowtheline.co.nz

Quite simply, Live Below The Line allows thousands of people in New Zealand to better understand the daily challenges faced by those trapped in the cycle of extreme poverty, and builds a movement of passionate people willing and able to make a meaningful difference for those who need it most. Students can sign up as individuals or as teams (great for classes, special groups or Houses). When they sign up they get to choose their favourite charity out of the five on offer, and fundraise for them. The campaign has been a huge hit in Australia the last two years running, and its looking like it will make a similar impact here. I hope to see some of your students on board, and don't hesitate to get in touch if you have any more questions.



Warm regards

Will Watterson







What is the connection between the moon, salt, eggs, hay bales, mice and native fish?

The connection is inanga (Whitebait) spawning areas.

Where are they? What can help them and what can hinder them?

Scientists at TDC would like your help to research some of these questions. The watery fun would involve students investigating the catchment, water quality, salinity levels and vegetation of a stream or creek mouth near your school, between February and April next year. Even better if this creek or stream is one you have already adopted, or would like to. Contact Adie Leng (phone 543 8400) or Claire Webster (phone 525 0020) at Tasman District Council to plan for next year.

So here are the connections:

	The phase of the moon influences the tides and when the inanga go downstream to spawn. <i>It also signals the best time for mapping and testing the creek/stream.</i>
	The tide mixes the salty sea with the stream's fresh water. Inanga spawn near the upper limit of the saltwater wedge associated with high spring tides, usually between February and May. <i>Water detectives can check both the water and plants to see how far a high tide goes.</i>
	Inanga eggs stick to the soil or damp vegetation growing close to water on the banks of streams/creeks. The vegetation stops the eggs from drying out. <i>The hunt is on for eggs in March and April.</i>
	Hay bales can be used to provide a vegetation margin where plants are missing. <i>They also make it easy to find eggs.</i>
	Mice are known to enjoy eggs for breakfast and may be contributing to low egg numbers going out to sea. <i>Checking for mice and protecting the eggs from them is an added challenge.</i>
	Inanga are our most common native fish and whitebait catch. They are also eaten by eels and many other fish. Their life cycle has four stages: migration, stream residence, spawning, and marine growth. They usually die after they spawn. <i>Best time to hear them spawning is at night.</i>

Spawning sites are used year after year and can be protected and improved.

It is vital that we are able to understand and recognise inanga spawning grounds and their important role in the life of whitebait.



Whitebaiting starts August 15th.

Check out the Department of Conservation and the Whitebait Connection websites for rules and information about helping a stream or creek.



Kings Seeds is offering a

“SEEDY FUNDRAISER FOR SCHOOLS”

where you can buy their retail packets at discounted price only for fundraising resale.

Check out how on -

<http://www.kingsseeds.co.nz/Customer+Service/Fundraising+Ideas.html>

Rocky shores, love 'em, don't wreck 'em!

As the summer approaches and the school camp season swings into gear many schools will be heading to the beaches and coastlines around Nelson and Marlborough. I thought it might be an opportune time to remind people to think about the impact of their trip.

Being 'loved to death' may not be too far from the truth in those places where school camps often go to, like Kaiteriteri, Marahau, Mistletoe Bay or Totaranui. In these places the impact of many classes can have on a relatively small number of rock-pools or patch of beach can be significant. One or two children making a wind mobile out of shells lying on the beach is fine, but 30 children doing that is quite different, and 6 classes doing that over a number of weeks, is a disaster!

So remember the basics!

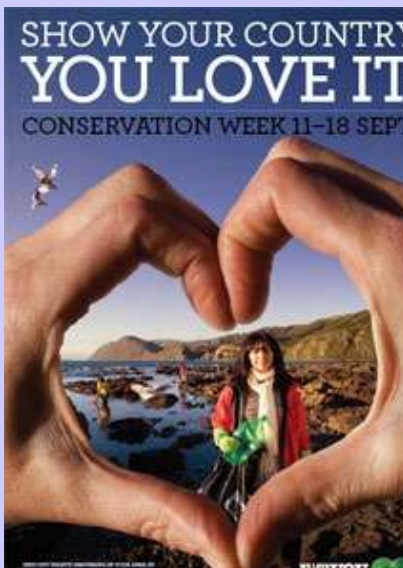
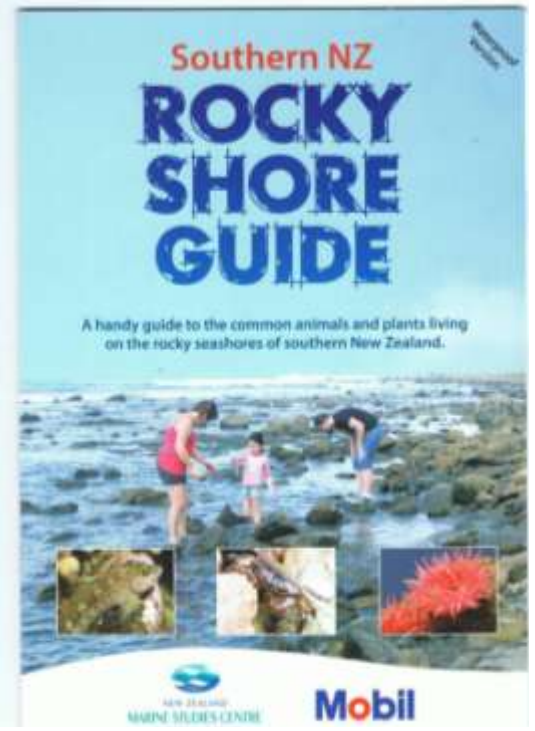
- Show respect for seashore creatures;
- Tread carefully
- Leave creatures where you found them
- Leave attached seaweed in place
- Handle creatures with care – close to the ground and with wet hands
- Put rocks carefully back where you found them
- Limit any collecting of shells, they will become homes for other creatures.

- Don't disturb wildlife
- Keep dogs under control
- Keep your distance, use the zoom on your camera to get a closer view

- Be careful and keep safe
- Check tide times and don't get cut off by rising tides
- Don't explore alone
- Watch the weather
- On exposed coasts don't turn your back to the waves
- Be mindful of slippery and loose rocks
- Pick up any rubbish you can, even if it's not yours.

And if you want copies of the Rocky Shore Guide let me know, class sets are available free. I may be able to visit you on camp too to help with your rocky shore programme.

Richard de Hamel ph 540 3755 or richard.dehamel@otago.ac.nz



About Conservation Week

Show how much you love New Zealand by celebrating Conservation from 11-18 September 2011. Join thousands of people across the country to celebrate our native wildlife, our incredible natural areas, and the places that are part of our history by taking part in conservation events and activities, watching programmes on TVNZ 7 and sharing your photos with the [Love New Zealand photo group on Flickr](#).

The Local Great Living Legends Muck In event at Wakapuaka Wetland Atawhai Nelson. With Todd Blackadder - Rugby legend.
Saturday 24 September 2011
Come and help plant 5000 plants in this important feeding for wading birds and spawning area for fish.

What is KEGS? (Nelson)

You may have noticed the name KEGS appear in this issue of EcoBuzz or may have even heard of it before. KEGS stands for Kids Edible Gardens in Schools. It was set up in Nelson in 2009, and is operated here by the Nelson Environment Centre with support from the Nelson Marlborough District Health Board and Nelson City Council. It is currently running in six Nelson schools and is supported by a coordinator, facilitator and teaching resources. KEGS aims to teach children to grow organic edible gardens and to eat the produce they make.



Victory School students loving gardening

Why edible gardening in schools? Edible gardens are a great way to get kids interested in the natural world – how things interact, where our food comes from, where our waste goes. When children are involved in growing their own food, they are more likely to take an interest in eating more healthily, plus they get the benefits of the physical activity. Gardening links to all areas of the curriculum and can provide a real life context in which children can learn literacy and numeracy skills in a practical way which will appeal more to some learners. It is hoped that students will take their interest in gardening home, where families can also experience the many benefits involved.

Also there are wider benefits in growing our own veggies; we are able to control what is put on them. We harvest and eat them when they are at their best and most healthy for us. We eliminate the need for packaging. We eliminate the need to travel to buy, saving time, money and reducing CO2 emissions which contribute to global warming. We eliminate transportation costs so there are no 'food miles' and we use nature's systems and do not pollute soil resources. By doing so we build resilience and make our communities sustainable.

The KEGS programme follows a seasonal growing guide which includes activities which can also be used in the classroom across the curriculum. Teachers and facilitators were given the opportunity to attend a workshop recently outlining the guide and how it links to the current NZ curriculum. KEGS operates slightly differently in all schools to best meet the schools needs. This year there is a stronger emphasis on facilitators and teachers working alongside so see the learning opportunities from KEGS used both inside and outdoors. The programme is also making links to the Nutrition and Physical Activity programme and Enviroschools.

This term we have had great fun cooking the fruits of our labours. Auckland Point School made delicious Beetroot Brownies whilst pupils at Victory School enjoyed their purple potato crush. Look out for KEGS pupils from Tahunanui School showing ways to cook up the winter veggies they've grown at the Ecofest on 21st August at 2 pm.

For more information please contact **Lindsey Fish** at the NEC: 545 9176 lindseyfish@nec.org.nz

Tahunanui School kids love silverbeet!

As the weather was awful today we decided to cook some of the plentiful Silverbeet growing in the garden. Although some of the pupils had cooked piklets before they hadn't cooked them with Silverbeet and some were surprised at the delicious results. We experimented with using non-stick surfaces to cook on with no fat. The kids met the challenge to work as a team and to follow a recipe. They also learned about how to cook safely when using a fry pan. When the pikelets were cooked each group shared them with their classes, so 150 kids got to eat silverbeet pikelets and got to realise that they do like silverbeet!



Recreational Shell Fishing – An opportunity for social and scientific action



"She sells sea shells on the sea shore"



Many of you may have picked up pretty shells from the beach or collected mussels, pipi or cockles to barbeque when you are on camp, or holiday. However, you may have also seen warnings not to eat the shellfish? Or perhaps you just didn't find any shells where you were looking?

In many places around New Zealand, there has been community concern at the number of recreational shell fishers taking more than permitted from beaches and estuaries. There is even concern that the limits allocated by the Ministry of Fisheries are not sustainable for the numbers of people fishing, at certain times of the year. These are the limits for our region:

Shellfish species	Daily limit per fisher	*Minimum size (mm)
Cockles	150	none
Kina (sea eggs)	50	none
Mussels	50	none
Pipi	150	none
Toheroa	Prohibited	Prohibited
Tuatua	150	none
All Others (combined)*	50	none

Identification Chart:

<http://www.arc.govt.nz/albany/fms/main/Documents/Environment/Coastal%20and%20marine/Shellfish%20Identification%20Guide.pdf>

If your school or class like to investigate an area with shellfish beds, some of the key questions that could be encouraged are:

What shellfish beds are there now and where are they?

What were they like ten, twenty, thirty or more years ago?

How much is there now compared to back then?

What is the current condition and use of the shellfish resource?

Who manages the beds?

How are the shellfish beds currently managed by Iwi?

What are the factors maintaining, or retarding, the shellfish bed health and numbers?

What are the fisheries management regulations and options?

Do any shell fish types or beds need to be restored?

If you do plan to undertake a study or have any useful information on any shellfish beds in the District, please contact Adie Leng or Claire Webster at Tasman District Council. By working together, your information could contribute to a proposed shellfish food safety monitoring programme and perhaps grow community interest in this issue.



Project Kereru

Check out Project Kereru for info all about this project to help save our native wood pigeon, including what to do with an injured kereru and how to prevent birds hitting windows. Also view some beautiful photos. Check out the website for how to take part. They are a voluntary community group.

Check out www.projectkereru.org.nz

Did you know – since the extinction of moa the Kereru are the only bird with a large enough beak to eat over 12 mm - the seeds of many of our native trees? If the kereru becomes extinct it would spell disaster for our native forests.



THE OUTLOOK FOR SOMEDAY

The Sustainability Film Challenge for Young People

HEADS UP FOR 2011 FILM CHALLENGE – deadline is 30 September.

The **Outlook for Someday** film challenge is now in its 5th year.

The entry deadline for 2011 is 30 September. We're looking forward to watching the films that come in from young people throughout New Zealand on the big issue of our time – sustainability. And as usual **The Outlook for Someday Awards** red-carpet ceremony will be towards the end of the year. This year's entry form will be up on the [website](#) in May or June, as well as all the info about this year's Special Awards, but don't wait till then – get planning and creating. www.theoutlookforsomeday.net

Sustainability is Our environment, our biodiversity, our life, community development, social justice, peace, health, human rights, cultural identity, science, innovation, creativity, diversity, leadership, enterprise, citizenship ... LONG WORDS, BIG IDEAS, SHORT FILMS.



Carving the Future Documentary

http://shop.350.org.nz/Carving_the_future_DVD/p772986_3479750.aspx

Now seen by more than 7,000 Kiwis, Carving the Future is an inspirational, internationally award-winning 25-minute documentary. The film weaves together a beautiful skateboarding aesthetic, the global 350.org movement, and four inspirational young New Zealanders leading large-scale action projects amongst their peers, schools, and communities. It's an active, solutions-focused look at how one person can make a difference!

Carving the Future was produced in 2009/2010 by Guy Ryan and Nick Holmes as the final year project for their Masters in Science Communication at The University of Otago.

Carving the Future is a powerful film and an educational resource to inspire young New Zealanders to take action in their schools and communities. The film explores the future challenges posed by climate change and environmental degradation through the lives of four inspirational young characters leading change - each engaged in positive action to build resilience in their respective communities across New Zealand.

A day to move beyond fossil fuels: September 24th 2011

<http://www.moving-planet.org>

Moving Planet is a worldwide rally to demand solutions to the climate crisis—a single day to move away from fossil fuels. For too long, our leaders have denied and delayed, compromised and caved. It's time to create a different future.

Come on bike, on skates, on a board, or on foot. Come with your neighbours and your friends, your family and your co-workers. Come be part of something huge.

Elections being held on November 26th

Generation Zero is lobbying politicians to take a stand to improve our future www.generationzero.org.nz

From the website: While every other generation has inherited a world with a promise for greater prosperity and a brighter future – our generation is facing an inheritance of ecological and economic debt, rising sea levels, poisoned ecosystems, lack of water, international famine and mass migration. . . . We, of all generations, have the potential to link together to confront and change this future. We have almost everything at our finger tips, including each other . . . We need New Zealanders of all generations to join us in finding and enacting the solutions that will save us. We need to act with the fierce urgency of now.

The Festival of Eels , Whakanuia o te tuna this year is on 17th and 18th of September at the Jester House

The festival is to welcome the eels back after their winter hibernation. We run a variety of eel activities - clay eel modelling, eels and ladders, as well as focusing on stream health and the need to protect eel habitat. The supervised activities are available from 11.00 until 4.30. Eel feeding is available while the cafe is open, 9.00 until 5.00.

For more information or to make a booking please contact Judy or Steve Richards at 03 5266742 or email lunch@jesterhouse.co.nz



Teacher's Guide to Space Technology for Disaster Management

If you want your students to know how space science education can help with disaster management and understanding our global environment check out:

<http://www.teacherswithoutborders.org/programs/core-programs/emergency-education/publications-products/teachers-guide-space-technology-dis>

Satellite imagery has become an indispensable part of reporting on and responding to disasters in the 21st century.

This series of space science lesson plans has been developed so that they may be conducted anywhere in the world. The lesson plans emphasize space applications with the potential to affect everyday lives, satellite systems operations, space data analysis concepts and tools, space-related planning and decision-making, and the importance and implications of sharing space-based data across borders.

International Student Space Competition

Submissions due 24 August 2011

Topic: Can you save people on earth from ash cloud?

This competition challenges students to think about the unique benefits that space-based systems provide, to solve real on-earth problems using current and future space technologies.

Full details and registration can be found at the competition website

www.whatifprize.org/competition2011.php

Eligibility: **Teams: 1-2 students Ages: 10-14 Adult supervisor required** (students ask your teacher)

Keep New Zealand Beautiful Week 20-27 August

Find out what your community is doing this week and join in. or create your own group – lets clean up the country!!

<http://cleanup.knzb.org.nz/home>



"Cows and calves - life on a dairy farm"

A new publication aimed at Year 3 - 8 students (about seven to 12 year olds) has been released explaining and showing in full colour pictures dairy farming. The range is from the birth of a calf, her life through the calf shed and then onto the milking shed, where highly nutritious milk is collected and then sent to the supermarket. It also deals with bobby calves, effluent management, vets at work and life for children on the farm. This little 23 page book is really engaging, with language that is suitable for the age range and aims to foster an interest in farming life.

It was developed by the Animals in Schools Education Trust, of which Federated Farmers is a member. Class sets are available, together with teacher notes, for \$60 for ten plus post and packing or it may be bought as single copies for \$6.60 plus post and packing. Another title available is "Cold snap lambs", which is all about sheep. More information and how to order can be found at <http://www.aiset.org.nz/content/material>





WASTE EDUCATION SERVICES (WES)

Meet the WES Schools Team – (from left) Mary Curnow , Sarah Langi & Claire Webster

Contact us to find out how WES can support you with reducing your waste, saving money and helping your local environment or check out www.wes.org.nz for new resources and ideas!



Mary works with Nelson schools – 03 545 9176 or marycumow@nec.org.nz

Sarah works with Nelson & Tasman schools (except Golden Bay) – 03 545 9176 or sarahlangi@nec.org.nz

Claire works with Golden Bay schools – 03 525 0020 or claire.webster@tasman.govt.nz

Turning lunchbox waste into food



A much needed break in the clouds meant that visiting students from Enner Glynn School could enjoy the Nelson Environment Centre's new garden and centre to the max, and find out how food scraps from their lunchboxes could be turned into great compost for the garden. Following a recent WES waste audit at the school, students were keen to find a solution to the problem of food scraps going to landfill and spent the morning learning about the benefits of composting and worm farming. The worm farm proved to be a big hit with the children who enjoyed getting up close to the worms finding out what they like to eat and how the 'worm wee' and 'worm poo', or vermicast, helps plants grow big, tall and strong producing tasty fruits and vegetables. Just what you need for growing healthy minds and bodies!

Outside in the garden, children were encouraged to help build their own compost heap with the help of Sarah Langi, the WES Schools Facilitator and together they found out how composting helps get rid of more than just food scraps. All kinds of organic waste can be put into a compost heap, like straw, animal manure, shredded paper, weeds, dead leaves, grass clippings, seaweed and tree pruning's as well as food scraps from lunchboxes. The morning was a great success, with the school returning a couple of weeks later with a second group of students. Nelson Environment Centre are keen to welcome school groups to the new centre so if you would like to arrange a visit, contact the WES team.

Caretakers' network has positive outcomes for schools

There was lots of humour and lively discussion at the latest get-together for school caretakers held recently at the Nelson Environment Centre (NEC). These lunches have become an annual event, organized by Waste Education Services (WES) and funded by NCC and TDC. In Tasman, lunches were held at Richmond, Motueka and Golden Bay schools. These get-togethers, although light-hearted, produce positive outcomes for schools around waste management and minimization and have proved to be very popular with caretakers. Often the unsung heroes of the school community, caretakers have to deal with some of the most unpleasant jobs, and play a vital role in reducing waste.

Forming a strong network has enabled caretakers to share expertise and knowledge as well as resources, with obvious benefits for schools. Caretakers from the local schools that are working towards becoming zero-waste are very supportive and positively encourage others to do the same. Garden waste from school grounds is increasingly dealt with on-site, saving on the cost of mulch and fertilizers. More schools are now composting and growing food gardens. Ideas for reducing hazardous waste such as swimming pool chemicals have led to cost savings and improvements for the school environment.

'It's great - this is the only opportunity we get to come together as a group', was the feedback.



A love affair with nature

All too often these days, even in New Zealand, children spend long hours indoors, in front of a screen, learning more about the speed with which a cheetah hurtles itself at a springbok, than about the creatures that live in their own backyard.

According to Joseph Cornell, author of the Sharing Nature® book series*, and one of the most highly regarded environmental educators in the world today, the thing that all famous environmentalists have in common is that, when very young, they spent lots of time outdoors with an adult who was passionate about nature. Helping young children fall in love with nature, and connecting them with their immediate environment is perhaps, therefore, one of the best things we can do to safeguard the planet for future generations. Dwelling on the problems we are currently facing, on the other hand, may cause them anxiety and a feeling of hopelessness, which in turn may turn them off.

Happily, many early childhood education centres are fully committed to environmental education: visitors to a typical centre will be greeted by children growing and cooking veggies, creating butterfly gardens, caring for worm farms and watching the birds they have attracted to their gardens by making bird feeders out of recycled materials.

At a cluster meeting held recently at Grove Street Kindergarten, teachers on the Small Planet programme met to share their work and ideas. Their enthusiasm was infectious: everyone is working hard and achieving some fantastic outcomes—there are greenhouses made of plastic bottles mounted on bamboo sticks, pinecones dipped in hot fat, rolled in sunflower seeds and breadcrumbs, hung in trees to attract zillions of birds, gardens growing food, bokashi projects, vision maps, zerowaste lunches and lots more!

To make your own greenhouse made out of plastic bottles mounted on bamboo sticks, check out:

http://news.bbc.co.uk/local/humberside/hi/people_and_places/nature/newsid_8408000/8408980.stm

Nelson City Council developed **Small Planet** last year: a programme designed to encourage early childhood education centres in their environmental education work and celebrate their achievements. The facilitated programme is currently available to 20 Nelson ECEs. The programme booklet, outlining simple activities that are fun to do with young children, is available to all.

It can be downloaded free from the Nelson City Council's

website: <http://www.nelsoncitycouncil.co.nz/assetsEnvironment/Downloads/Small-planet-manual-2010-small.pdf>

To find out more, contact the Small Planet Facilitator:

Sarah Langi 03 545 9176 or sarahlangi@nec.org.nz

*To find out more about Joseph Cornell's resources and activities, check out <http://www.sharingnature.com>

Small Planet



A call for plastic bottles!

Nelson Environment Centre needs your help! We'd like to build a greenhouse made of plastic bottles in our garden but need 1500 clear or coloured 2 litre plastic bottles to make this happen. Can you help by collecting bottles for us?

We'd also love some schools to come along and help us build the greenhouse once we have enough bottles, hopefully in Term 4. If you would be interested in collecting bottles or helping to build the greenhouse, it would be great to hear from you. Contact Mary Curnow or Sarah Langi, WES facilitators at the Nelson Environment Centre on 03 545 9176 or info@wes.org.nz for more info.

To make your own greenhouse made out of plastic bottles mounted on bamboo sticks, check out:

http://news.bbc.co.uk/local/humberside/hi/people_and_places/nature/newsid_8408000/8408980.stm

TDC Zero Waste Grants

Just a quick reminder that all Tasman schools & ECEs (sorry not Nelson!) can apply for a TDC zero waste grant to help fund projects that result in waste reduction or provide education on waste minimisation!

Grants are not available for gardening projects like set up costs; purchasing garden tools or equipment; or buying plants. BUT... compost bins, worm farms and bokashi systems do fit the funding criteria as these stop food scraps and greenwaste going to landfill!

Closing date for the next round of funding is Mon 26 Sept 2011 (end of Term 3)

You can download the forms from - <http://www.wes.org.nz/zero-waste-grants>
or contact Mary on 545 9176 or marycurnow@nec.org.nz

Snippets and interesting websites:

- Check out this very cool worm farm, invented by Ben Bell - <http://www.hungrybin.co.nz/>
- Making things fun is the key to changing behaviour - <http://www.thefuntheory.com/>
- Evidently, Barbie digs deforestation: Greenpeace exposes Mattel for using unsustainable packaging: <http://www.treehugger.com/files/2011/06/barbie-digs-deforestation-greenpeace-mattel-packaging.php>
- Find out how to seal plastic bags with old bottle caps! <http://lifehacker.com/5653113/seal-plastic-bags-with-old-bottle-caps>
- How government is helping a kiwi business compost nappies rather than sending them to landfill <http://beehive.govt.nz/release/govt-grant-brings-nappy-composting-wgtn>



Saturday, 20 August 10am-5pm, Sunday, 21 August 10am-4pm, Trafalgar Centre, Nelson

www.ecofestnelsontasman.co.nz

Programme in your Council newsletter & available at all Council offices & libraries

Funky Fashion Shows

@ Ecofest 12.30 both days

Showcasing the best of our Region's Schools' creativity



All Nelson Tasman Schools are offered a free stand!

Sunday, 13 November @ Founders Heritage Park

A great opportunity for fundraising, showcasing your school's 'growing' success,

Enviroschools activities or kids' edible gardens.

Email Jo Reilly on info@nelsongrowables.co.nz or call 543 3663 to find out more,
or visit our website: www.nelsongrowables.co.nz.

PAC-IT EDUCATION RESOURCE



For those wanting an introduction into packaging in New Zealand, a comprehensive educational resource called PAC-IT has been developed with support from central government (Ministry for the Environment's Sustainable Management Fund, Ministry of Education), local government, industry and academics. PAC-IT has been developed to support projects possible in a classroom with the focus on materials most likely to be used e.g. plastic and paper, and aims to support the information needs of all teachers of years 1-10 for several years, so it is as complete as possible.

The components of PAC-IT are:

PAC-IT TEACHERS GUIDE- is aimed at teachers of years 1-10 who are intending to use, or are using, projects in packaging in their programme. Primarily supporting the technology curriculum PAC-IT is also useful in other learning areas such as science, social studies, maths, art, language and health.

PAC-IT ACTIVITY IDEAS- is a resource to support achievement objectives in a range of learning areas. There are six sections:

1. The functions and types of packaging 2. Packaging materials 3. Investigating properties of packaging materials 4. Producing packaging 5. Disposal of packaging materials 6. Fun with used packaging materials

PAC-IT VIDEO / DVD - clips of five different packaging processes.

The complete PAC-IT KIT - containing samples of packaging materials, the Teacher Guide, Activity Booklet and video / DVD - costs \$35.00 + GST (includes postage and handling within NZ). To purchase the PAC-IT Education Resource Kit, email pac.nz@packaging.org.nz stating you would prefer a video tape or DVD.

Fairtrade School Action Guide

Fairtrade have released a new school resource, the School Action Guide. It provides background on the beginnings of the fair trade movement and outlines how Fairtrade certification works.

There are three complimentary units covering

- Fairtrade and bananas,
- Fairtrade and coffee, and
- Fairtrade and chocolate.

They are targeted at students in Year 8 to year 10, and include links to subject areas with detailed lesson plans, student resources and corresponding curriculum information.

For younger students there is a module called 'Taking a Journey into Trade', which is a complete resource that provides teachers with curriculum information, lesson objectives and plans, as well as interactive and colourful resources.

All the resources can be downloaded for free from <http://fairtrade.org.nz/get-involved/school>

Trees for Bees

If you missed Bee Week 30th May to 3rd June but are interested in supporting our pollinating friends check out the trees for bees programme resources at <http://www.fedfarm.org.nz/treesforbees>

Bees are crucial to our primary sector, with a role far beyond honey production. New Zealand's dependence on horticulture and agriculture means we may be more dependent on pollination from the honey bee than any other nation on earth.

Roughly one third of everything we eat is pollinated by bees. Many of our crops would not be viable without bee pollination – with an important role also played by bumble bees

Quick facts

\$5.1 billion of New Zealand's economy is attributable to pollination by honey bees, domestic honey sales and exports, beeswax and exported honey bees.

About one third of our food comes as a direct result of honey bee pollination.

Around \$81 million worth of honey is exported each year.

About 3,251 New Zealanders keep bees.

There are about 388,369 beehives in New Zealand.

Check out - the Pollination Game on the next page!

Activity one - The Pollination Game

The pollination game helps children connect with nature through play. The children become bees and experience what happens when they must compete for diminishing food supplies, or risk being poisoned. After playing the game, the children reflect on their learning and decide what they can do to help look after the bees and bugs in their environment.

The game was adapted from an activity originally developed by the Field Studies Council at Epping Forest Field Centre, UK. And now borrowed from the Conservation Week website. Check out – www.conservationweek.org.nz for more.

Aim - To show in a fun and active way the importance of flowering plants for bees.

Learning outcomes -

- Students will learn how flowers are pollinated and what happens when bees have to work harder and travel further to find nectar.
- Students will demonstrate an understanding of ways people can affect bees, and what they can do to help look after their local bee and insect populations.
- Science: Living world: Ecology
- Social sciences: Place and environment

Curriculum levels - Levels 2-4

Time needed - 5 minutes to set up 15 minutes to play

Prior knowledge needed by students - How plants are pollinated, and the vital role of bees.

Location - Use a flat outdoor area. It is recommended not to play the game indoors as water may get spilt on the floor and children may slip over and injure themselves.

Equipment -

- Two cardboard box 'bee hives', each with an empty 500ml jar on top to collect 'nectar'.
- 15 jars or plastic cups, stuck onto coloured cardboard cut-out flowers.
- Two bottles of different coloured water eg red and yellow.
- A pipette or straw for each child taking part.
- Measuring jug.

Description of activity -

Divide the area you plan to use into two equal-sized spaces (use lines on your sports field or netball court, or a long rope and posts to measure the space out).

Place a cardboard 'bee hive' with a jar on top at the end of each space to collect nectar.

Explain to the children that each space represents a different habitat:

1. A 'bee-friendly' habitat with lots of flowering plants, where no artificial pesticides are used to control insect 'pests'.
2. An 'improved' habitat with very few flowering plants, where artificial pesticides are used to control insect 'pests'.

Arrange cardboard flowers randomly in each habitat. Use fewer flowers spaced further apart in the 'improved' habitat, and more flowers placed closer together in the bee-friendly habitat.

Pour coloured water ('nectar') into the cardboard flower cups. Use different coloured water for the flowers in each habitat.

Now go!

Divide the group into two evenly sized teams, each with its own bee hive. Ask each team to line up along one end of their habitat.

Explain that their task is to work together as a community to collect nectar from the flowers in their habitat, using pipettes or straws (the equivalent of a bee's proboscis - the tube bees use to suck up nectar from the inside of flowers).

Each team is to visit all the flowers in their habitat only, using their straw or pipette to suck up the coloured water, or 'nectar' from the flowers and returning to the hive to deposit it into the jar. (Explain that the two habitats are too far apart for bees to travel between).

Keep the game going until the bees from the 'improved' habitat have collected all of their nectar and can no longer find any food.

Leave the game going a little longer so the 'improved habitat' team can see that the other team are still able to collect nectar and keep going. Once they start saying 'that's not fair', stop the game.

Measure the amount of 'nectar' collected in each 'hive'. See who has been able to collect more. (It should be the team representing the bee-friendly habitat). Discuss what happened and why.

Further discussion - Why do bees need nectar? - What can happen when bees have to travel further to find nectar? Or if the flowers they visit have been sprayed? What can we do to help look after them?

List the different kinds of honey made from nectar from New Zealand native plants. Why is our beekeeping industry so important?



Activity two – COMPOSTING IS AS EASY AS ABC! (Borrowed from www.coolkidsgrow.com)

Making compost is simple and heaps of fun! Compost is great for the garden, the environment and it can be educational too! Make compost by recycling the refuse from your garden, school, office and kitchen.

A is for Aerobic – Aerobic means using oxygen to decompose organic matter into compost. Awesome!

B is for Bugs – Discover the gazillions of bugs and micro-organisms working like crazy to make your compost. Brilliant!

C is for Carbon – Make compost by combining carbon ingredients with nitrogen ingredients. Carbon ingredients are brown and dry and nitrogen ingredients are green and wet. Crazy!

How to Make Compost -

- a) Make an enclosure or bay for your compost from untreated wood, lattice and chicken wire or simply make a pile of compost directly on the earth, that way the worms can get to all the yummy stuff!
- b) Collect brown and green ingredients. Brown ingredients are leaves, brown grass, straw, shredded newspaper and small branches. Some green ingredients are fruit and vegetable scraps, green grass, garden waste, seaweed and manure from chickens, sheep, cows or horses.
- c) Combine brown and green ingredients together at a ratio of 3:1 of brown to green. Add a spadeful of compost or fertile garden soil; this introduces bugs and micro-organisms to the compost.
- d) Don't use; cheese, meat, chemically treated wood or paper products (like coloured magazines or coloured newspapers), bones, oil, diseased plants, weeds with seeds, pet poo or kitty litter.
- e) A compost pile creates its own heat in the centre; this is how the compost cooks, enabling the raw ingredients to breakdown, with a lot of help from worms and micro-organisms!
- f) To allow the cooking process the pile needs to be fairly large, aim to make the pile approx a cubic metre in size.
- g) Water the pile as you combine it, the compost should be moist like a squeezed out sponge but not soggy.
- h) Turn the compost every week or two with a garden fork, this allows air to circulate accelerating the composting process.
- i) Compost is ready when the organic matter is crumbly, black and odourless. If the compost is used before its mature it may rob important nutrients from your garden to complete the decomposition process.

Here's our Top Tip for Composting

A compressed compost heap will give off a nasty stench! This is because of a lack of oxygen. Add oxygen to your compost by turning regularly and leave some larger branches in the mix to provide air pockets.

Make Your Own Seed Raising Mix!

Make your own by combining 1 part of sieved compost, 2 parts top soil with 1 part sand.

Cool Kids Grow Top 10 Compost Tips!

1. Sift compost through chicken wire or a garden sieve and reserve this fine grade compost for making your own seedling mix.
2. Use a sign or marker with the date you made the compost.
3. Sunshine is good! Heat speeds up the compost process.
4. Cover with a black plastic sheet to accelerate the composting process and protect from too much rain.
5. Keep your compost pile moist (like a squeezed out sponge) but without over watering.
6. Chop organic waste into smaller pieces these will decompose quicker in the compost than larger pieces.
7. Spread compost around the garden and cover with mulch to protect the compost from drying out and watch your garden boom!
8. Turn the heap regularly to accelerate the decomposition process.
9. Add a couple of spadefuls of compost when planting shrubs and trees.
10. Make a list of suitable brown and green ingredients and keep it handy.

Worms – friends in low places

Worms might not look it but they are very important. Without worms there would be no trees or plants. Without plants there would be no animals (and that means us – people too!) Worms are essential for life on our planet.

Did you know?

- Worms breathe through their skins
- A worm has five double hearts
- If the worms in your garden are red, the soil is rich and well drained
- Worms burrow through the soil munching through any dead plant or animal matter they find along the way. They leave worm castings behind.
- Plants just love eating castings. They are rich plant food
- Each day one worm can produce its own weight in castings.